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What is claimed is:

- 1           1.    An image transfer sheet, comprising:  
2           a woven or non-woven web layer having on one side thereof  
3   at least one adhesion layer, said web layer having impregnated  
4   therein or coated thereon on the side opposite said adhesion  
5   layer, or both impregnated and coated thereon on the side  
6   opposite said adhesion layer, an image receiving formulation  
7   comprising at least one binder and at least one dye retention  
8   aid; wherein  
9           said image receiving formulation is capable of heat  
10   sealing an image upon the application of heat up to 220°C.  
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- 1           2.    The image transfer sheet according to claim 1,  
2   wherein said image receiving formulation is present on said  
3   web layer on the side opposite said adhesion layer.
- 1           3.    The image transfer sheet according to claim 1,  
2   wherein said binder is capable of melting upon heating and  
3   encapsulating an image.
- 1           4.    The image transfer sheet according to claim 1,  
2   wherein said web layer comprises woven or non-woven synthetic  
3   fibers.
- 1           5.    The image transfer sheet according to claim 4,  
2   wherein said web layer is capable of absorbing from 0% to 200%  
3   by weight of said image receiving formulation based upon the  
4   unimpregnated weight of the web layer.
- 1           6.    The image transfer sheet according to claim 4,  
2   wherein said synthetic fibers comprise at least one polymer

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3 selected from the group consisting of polyester, rayon, nylon,  
4 polyolefin, polypropylene, and polyethylene.

1 7. The image transfer sheet according to claim 4,  
2 wherein said synthetic fibers comprise polyester.

1 8. The image transfer sheet according to claim 1,  
2 wherein an 8.5 x 11 inch sheet of said web layer has a weight  
3 greater than about 0.01 ounce.

1 9. The image transfer sheet according to claim 1,  
2 wherein an 8.5 x 11 inch sheet of said web layer has a weight  
3 in the range of between about 0.01 ounce to about 5 ounces.

1 10. The image transfer sheet according to claim 1,  
2 wherein said web layer is impregnated with said image  
3 receiving formulation.

1 11. The image transfer sheet according to claim 1,  
2 wherein in said image receiving formulation, said at least one  
3 binder is an acrylic binder.

1 12. The image transfer sheet according to claim 1,  
2 wherein said at least one dye retention aid is a cationic  
3 polymer.

1 13. The image transfer sheet according to claim 1,  
2 wherein said at least one dye retention aid is at least one  
3 selected from the group consisting of a polyamide copolymer,  
4 silica and PVA.

1 14. The image transfer sheet according to claim 12,  
2 wherein said cationic polymer is a polydiallylmethylamine  
3 hydrochloride resin.

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1        15. The image transfer sheet according to claim 1,  
2 wherein said image receiving formulation further comprises an  
3 opacifying agent.

1        16. The image transfer sheet according to claim 15,  
2 wherein said opacifying agent is titanium dioxide.

1        17. A process for heat transferring an imaged area from  
2 a transfer sheet to a receptor element, comprising the steps:

3        (a) providing an image transfer sheet according to claim  
4 1;

5        (b) imaging the surface of said impregnated web layer or  
6 web layer coated with said image receiving formulation;

7        (c) placing the imaged transfer sheet on top of a  
8 receptor element, imaged side facing away from the receptor  
9 element;

10       (d) optionally placing a non-stick sheet on top of said  
11 imaged transfer sheet;

12       (e) applying heat to imaged transfer sheet.

1        18. The process according to claim 17, wherein said heat  
2 is applied to the imaged side of said transfer sheet or  
3 through the non-stick sheet, if present, or from the  
4 non-imaged side of the transfer sheet through the receptor.

1        19. The process according to claim 17, wherein said heat  
2 is applied at a temperature from about 110 to 220 °C.

1        20. A kit comprising:  
2 an image transfer sheet according to claim 1; and  
3 optionally instructions for using said transfer sheet  
4 and/or a non-stick sheet.

1        21. An image transfer sheet, comprising:

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2 a support sheet having a first and a second surface;  
3 at least one adhesion layer on the first surface of said  
4 support sheet; and  
5 a woven or non-woven web layer on said adhesion layer,  
6 having impregnated therein or coated thereon on the side  
7 opposite said adhesion layer or both impregnated and coated  
8 thereon on the side opposite said adhesion layer, an image  
9 receiving formulation comprising at least one binder and at  
10 least one dye retention aid; wherein  
11 said image receiving formulation is capable of heat  
12 sealing the image upon the application of heat up to 220°C

1 22. The image transfer sheet according to claim 21,  
2 wherein said binder is capable of melting upon heating and  
3 encapsulating an image.

1 23. The image transfer sheet according to claim 21,  
2 which further comprises an antistatic layer on the second  
3 surface of said support sheet.

1 24. The image transfer sheet according to claim 21,  
2 wherein said web layer comprises woven or non-woven synthetic  
3 fibers.

1 25. The image transfer sheet according to claim 24,  
2 wherein said web layer is capable of absorbing from 0% to 200%  
3 by weight of said image receiving formulation based upon the  
4 unimpregnated weight of the web layer.

1        26. The image transfer sheet according to claim 24,  
2 wherein said synthetic fibers comprise at least one polymer  
3 selected from the group consisting of polyester, rayon, nylon,  
4 polyolefin, polypropylene, and polyethylene.

1        27. The image transfer sheet according to claim 24,  
2 wherein said synthetic fibers comprise polyester.

1        28. The image transfer sheet according to claim 21,  
2 wherein an 8.5 x 11 inch sheet of said web layer has a weight  
3 greater than about 0.01 ounce.

1        29. The image transfer sheet according to claim 21,  
2 wherein an 8.5 x 11 inch sheet of said web layer has a weight  
3 in the range of between about 0.01 ounce to about 5 ounces.

1        30. The image transfer sheet according to claim 21,  
2 wherein said web layer is impregnated with said image  
3 receiving formulation.

1        31. The image transfer sheet according to claim 21,  
2 wherein said at least one binder is an acrylate binder.

1        32. The image transfer sheet according to claim 21,  
2 wherein said at least one dye retention aid is a cationic  
3 polymer.

1        33. The image transfer sheet according to claim 21,  
2 wherein said at least one dye retention aid is at least one

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3 selected from the group consisting of a polyamide copolymer,  
4 silica and PVA.

1 34. The image transfer sheet according to claim 32,  
2 wherein cationic polymer is a polydiallylmethylamine  
3 hydrochloride resin.

1 35. The image transfer sheet according to claim 21,  
2 wherein said image receiving formulation further comprises an  
3 opacifying agent.

1 36. The image transfer sheet according to claim 35,  
2 wherein said opacifying agent is titanium dioxide.

1 37. A process for heat transferring an imaged area from  
2 a transfer sheet to a receptor element, comprising the steps:  
3 (a) providing an image transfer sheet according to claim  
4 21;

5 (b) imaging the surface of said transfer sheet on the  
6 side opposite said adhesion layer;

7 (c) peeling said imaged web layer and adhesion layer  
8 away from the support material;

9 (d) placing the imaged transfer sheet on top of a  
10 receptor element, imaged side facing away from the receptor  
11 element;

12 (e) optionally placing a non-stick sheet on top of said  
13 imaged transfer sheet;

14 (f) applying heat to the imaged transfer sheet.

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1        38. The process according to claim 37, wherein said heat  
2 is applied to the imaged side of said transfer sheet or  
3 through the non-stick sheet, if present, or from the  
4 non-imaged side of the transfer sheet through the receptor.

1        39. The process according to claim 37, wherein said heat  
2 is applied at a temperature from about 110 to 220 °C.

1        40. A kit comprising:  
2 an image transfer sheet according to claim 21; and  
3 optionally instructions for using said transfer sheet  
4 and/or a non-stick sheet.

1        41. The image transfer sheet according to claim 1,  
2 wherein said image receiving formulation is added in an amount  
3 of 1% to 200% by weight relative to the uncoated weight of the  
4 web layer.

1        42. The image transfer sheet according to claim 21,  
2 wherein said image receiving formulation is added in an amount  
3 of 1% to 200% by weight relative to the uncoated weight of the  
4 web layer.

1        43. The image transfer sheet according to claim 21,  
2 wherein said adhesion layer has a dry coat weight of about 2  
3 to about 40 g/m<sup>2</sup>, preferably 10-30 g/m<sup>2</sup>; and, most preferrably  
4 15-25 g/m<sup>2</sup>.

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1        44. The image transfer sheet according to claim 1,  
2 wherein said adhesion layer has a has a dry coat weight of  
3 about 2 to about 40 g/m<sup>2</sup>, preferably 10-30 g/m<sup>2</sup>; and, most  
4 preferrably 15-25 g/m<sup>2</sup>.

1        45. The image transfer sheet according to claim 21,  
2 wherein said binder is capable of melting upon heating and  
3 encapsulating an image.

1        46. An image transfer sheet, comprising:  
2 a woven or non-woven web layer having on one side thereof  
3 at least one adhesion layer, said web layer having impregnated  
4 therein or coated thereon on the side opposite said adhesion  
5 layer, or both impregnated and coated thereon on the side  
6 opposite said adhesion layer, an image receiving formulation  
7 comprising  
8 at least one self-crosslinking polymer; and  
9 at least one dye retention aid; wherein said image receiving  
10 formulation is capable of heat sealing an image upon the  
11 application of heat up to 220°C.

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1        47. The image transfer sheet according to claim 46,  
2 wherein said self-crosslinking polymer is a self-crosslinking  
3 ethylene vinyl acetate polymer.



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1        48. The image transfer sheet according to claim 46, said  
2 image receiving formulation further comprising at least one  
3 thermoplastic binder other than the self-crosslinking polymer.

1        49. The image transfer sheet according to claim 48,  
2 wherein said at least one thermoplastic binder is an ethylene  
3 vinyl acetate copolymer.

1        50. The image transfer sheet according to claim 46, said  
2 at least one dye retention aid is a cationic polymer.

1        51. The image transfer sheet according to claim 46,  
2 wherein said at least one dye retention aid is silica.

1        52. The image transfer sheet according to claim 46, said  
2 image receiving formulation further comprising an opacifying  
3 agent.

1        53. The image transfer sheet according to claim 46,  
2 wherein said self-crosslinking polymer is present in an amount  
3 of 15-40% by weight based upon the dry solids weight of the  
4 formulation.

1        54. The image transfer sheet according to claim 50,  
2 wherein said cationic polymer is present in an amount of 1-10%  
3 by weight based upon the dry solids weight of the formulation.

1        55. The image transfer sheet according to claim 46,  
2 further comprising a polyamide copolymer is present in an

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3 amount of 5-40% by weight based upon the dry solids weight of  
4 the formulation.

1 56. The image transfer sheet according to claim 55,  
2 wherein said polyamide copolymer is present in an amount of 5-  
3 40% by weight based upon the dry solids weight of the  
4 formulation.

1 57. The image transfer sheet according to claim 48,  
2 wherein said thermoplastic polymer other than the self-  
3 crosslinking polymer is present in an amount of 5-40% by  
4 weight based upon the dry solids weight of the formulation.

1 58. The image transfer sheet according to claim 51,  
2 wherein said silica is present in an amount of 5-60% by weight  
3 based upon the dry solids weight of the formulation.

1 59. The image transfer sheet according to claim 46,  
2 wherein said at least one dye retention aid is at least one  
3 selected from the group consisting of a cationic polymer, a  
4 polyamide copolymer, silica or PVA.

1  
2 60. The image transfer sheet according to claim 46,  
3 wherein said image receiving formulation comprises:

4 15-40% by weight of at least one self-crosslinking  
5 polymer;

6 5-40% by weight of at least one thermoplastic polymer  
7 other than said self-crosslinking polymer;

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8        5-40% by weight of at least one polyamide copolymer;  
9        1-10% by weight of at least one cationic polymer;  
10       5-60% by weight of silica, wherein said % by weight is  
11 based upon a 100% total dry weight of the composition.

1        61. The image transfer sheet according to claim 60,  
2 wherein said image receiving formulation comprises:  
3        25-35% by weight of at least one self-crosslinking  
4 polymer;  
5        10-30% by weight of at least one thermoplastic polymer  
6 other than said self-crosslinking polymer;  
7        10-30% by weight of at least one polyamide copolymer;  
8        1-4% by weight of at least one cationic polymer; and  
9        10-40% by weight of silica,  
10 wherein said % by weight is based upon a 100% total dry weight  
11 of the formulation.

1        62. The image transfer sheet according to claim 1,  
2 further comprising at least one opaque layer between said  
3 adhesion layer and said web layer.

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